



APPLIANCE EFFICIENCY REGULATIONS

Staff Workshop

Battery Chargers and Lighting Controls

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Staff Presentation

Ken Rider

Appliance Efficiency Program

Appliances and Process Energy Office

California Energy Commission



California Policy

Energy efficiency is a key strategy for achieving several state policy goals:

- **The Warren Alquist Act** and the **Integrated Energy Policy Report (IEPR)** establish California's policy and approach to energy efficiency standards.
- The CPUC and CEC coordinate an **Energy Action Plan** for the state. This identifies efficiency as the first priority in loading order. A key part of a plan to reach zero-net energy residential and commercial buildings by 2020 and 2030 respectively.
- CARB's *Climate Change Scoping Plan*, implementing **AB 32**, identifies appliance efficiency standards as key measure of the strategy to reduce greenhouse gas emissions.



Warren-Alquist Act

The Warren-Alquist Act, requires that appliance efficiency standards:

- are for appliances that have a significant statewide energy use;
- are feasible and attainable;
- and that they are cost effective, in that they “shall not result in any added total cost to the consumer over the designed life of the appliance”

And gives the Energy Commission authority to:

- set specific minimum energy efficiency or maximum energy usage levels;
- specify testing, marking, and labeling requirements;
- collect and verify data



Warren-Alquist Act

Legislative findings:

Electrical energy is essential to the health, safety and welfare of the people of California and to its economy, and it is the responsibility of the Energy Commission, as a state agency, to ensure that a reliable supply of electrical energy is maintained. (*derived from PRC §25001*)

There is a concern that the rapid rate of growth in electrical energy consumption due to wasteful and inefficient appliances if left unabated will result in serious depletion or irreversible commitment of energy, land and water resources, and potentially threatens the state's environmental quality. (*derived from PRC §25002.*)

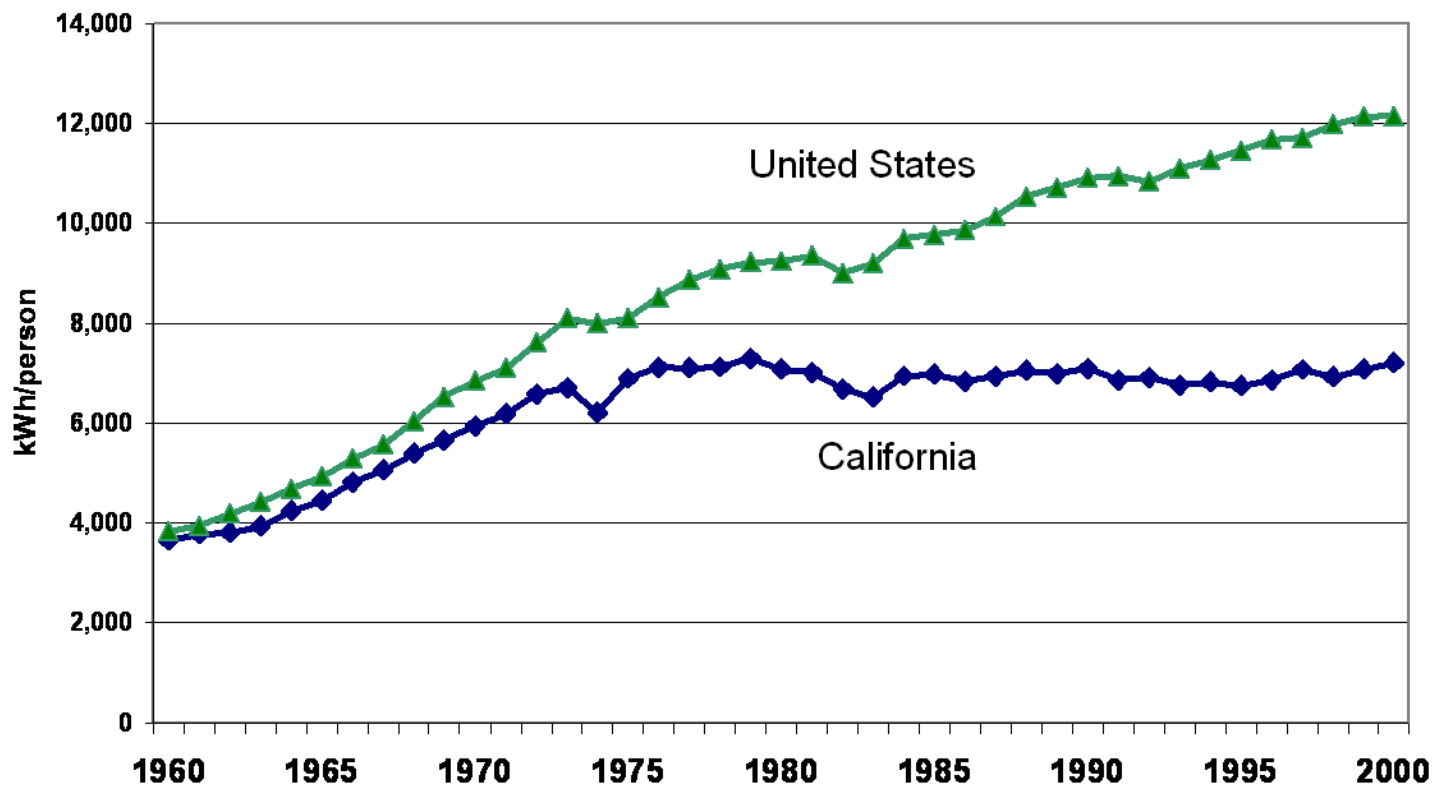


Benefits of Appliance Efficiency

- The cheapest way to meet energy demand is through efficiency.
- Appliance efficiency standards reduce overall electricity demand
 - Reduces need for new power plants and transmission systems
 - Increases electrical system reliability
- Reducing demand will help to achieve renewable energy goals.



Per Capita Energy Consumption





Appliance Efficiency Savings

- The recently adopted standards, televisions and general service screw-base lamps, are estimated to save 18,768 GWh per year by 2020.
- CEC's Demand Analysis Office estimates existing appliance efficiency standards currently save 18,761 GWh per year
- At \$0.14 per kWh the combined savings avoid \$5.2 Billion per year in cost and additional costs of power plant construction and electrical distribution.
- A minimum of 4,286 MW of electrical generation would be needed to provide that amount of energy.



History of BCS standards development

- 2001, AB 970 calls for energy efficiency standards to mitigate the energy crisis.
- CEC identified battery chargers and external power supplies as having large savings potential.
- 2004 CEC initiated a rulemaking for external power supplies, and found test procedure to be inadequate for BCS.



History of BCS standards development

- 2005 PIER funded development of BCS test procedure.
- 2007 Draft BCS test procedure released.
- 2008 CEC rulemaking adopts BCS test procedure
- 2009 energy use data was collected for standards development.



Battery Charger Rulemaking

- Scope – small and large chargers except highway vehicles.
- Why – BCS was identified in the 2007 scoping order as an opportunity to achieve significant energy savings
- Impact – BCS CASE report identifies 2,739 GWh of savings potential for standards.



Lighting Controls

- Propose to move lighting control requirements from Title 24 to Title 20
- Improves enforcement of existing law by ensuring only Title 24 compliant lighting controls can be sold.
 - Closes a loop-hole in existing regulations
 - Will require certification of these devices under Title 20.



Rulemaking Schedule

- Deadline for written comments for this workshop: October 29, 2010
- Release staff report: November 15, 2010
- Committee workshop: November 18, 2010
- Begin formal rulemaking and issue 45 day notice in December.



Written Comments

- Comments will be used to inform the staff report and standards development process
- Submit comments to docket@energy.state.ca.us
- Include docket number 09-AAER-2 in the subject line of comments.
- Staff is available to answer clarifying questions
- Deadline for comments is October 29, 2010.